

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference P16713PC/MH	FOR FURTHER ACTION See Form PCT/IPEA/416	
International application No. PCT/SE2003/001187	International filing date (day/month/year) 08-07-2003	Priority date (day/month/year)
International Patent Classification (IPC) or national classification and IPC G06F 17/21, H04L 29/06		
Applicant TELEFONAKTIEBOLAGET L M ERICSSON (publ) et al		

1.	This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.																								
2.	This REPORT consists of a total of <u>7</u> sheets, including this cover sheet.																								
3.	<p>This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input type="checkbox"/> (sent to the applicant and to the International Bureau) a total of _____ sheets, as follows:</p> <div style="margin-left: 40px;"> <input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions). <input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box. </div> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in electronic form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>																								
4.	<p>This report contains indications relating to the following items:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 10%; text-align: center;"><input checked="" type="checkbox"/></td> <td style="width: 20%;">Box No. I</td> <td>Basis of the report</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. II</td> <td>Priority</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. III</td> <td>Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td> </tr> <tr> <td style="text-align: center;"><input type="checkbox"/></td> <td>Box No. IV</td> <td>Lack of unity of invention</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Box No. V</td> <td>Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Box No. VI</td> <td>Certain documents cited</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Box No. VII</td> <td>Certain defects in the international application</td> </tr> <tr> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td>Box No. VIII</td> <td>Certain observations on the international application</td> </tr> </table>	<input checked="" type="checkbox"/>	Box No. I	Basis of the report	<input type="checkbox"/>	Box No. II	Priority	<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability	<input type="checkbox"/>	Box No. IV	Lack of unity of invention	<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement	<input checked="" type="checkbox"/>	Box No. VI	Certain documents cited	<input checked="" type="checkbox"/>	Box No. VII	Certain defects in the international application	<input checked="" type="checkbox"/>	Box No. VIII	Certain observations on the international application
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<input checked="" type="checkbox"/>	Box No. VIII	Certain observations on the international application																							

Date of submission of the demand 01-02-2005	Date of completion of this report 19-09-2005
Name and mailing address of the IPEA/SE Patent- och registreringsverket Box 5055 S-102 42 STOCKHOLM Facsimile No. +46 8 667 72 88	Authorized officer Lisbeth Andersson/MN Telephone No. +46 8 782 25 00

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/SE2003/001187

Box No. I Basis of the report

1. With regard to the language, this report is based on:

- ☐ the international application in the language in which it was filed
- ☐ a translation of the international application into _____, which is the language of a translation furnished for the purposes of:
- ☐ international search (Rules 12.3(a) and 23.1(b))
- ☐ publication of the international application (Rule 12.4(a))
- ☐ international preliminary examination (Rules 55.2(a) and/or 55.3(a))

2. With regard to the elements of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):

- ☒ the international application as originally filed/furnished
- ☐ the description:
- pages _____ as originally filed/furnished
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☐ the claims:
- pages _____ as originally filed/furnished
- pages* _____ as amended (together with any statement) under Article 19
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☐ the drawings:
- pages _____ as originally filed/furnished
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to the sequence listing (*specify*): _____

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to the sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

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Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
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1. Statement

Novelty (N)	Claims	<u>2-9, 11-19, 26-28</u>	YES
	Claims	<u>1, 10, 20-25</u>	NO
Inventive step (IS)	Claims	<u></u>	YES
	Claims	<u>1-28</u>	NO
Industrial applicability (IA)	Claims	<u>1-28</u>	YES
	Claims	<u></u>	NO

2. Citations and explanations (Rule 70.7)

Documents cited in the International Search Report:

D1: US 6163811 A
D2: EP 0896284 A1
D3: US 2002107866 A1
D4: US 2002065822 A1

The problem to be solved, according to the applicant, is to provide a data compression method and arrangement to minimise the overhead by using the first defining part in a two-part solution to create short codes for markup hierarchies defined in the first part, which short codes are used to replace the markup texts in the second part [see page 12 first paragraph].

D1, which is considered to represent the most relevant prior art, discloses a software distribution system using both differencing and compression techniques to distribute source files over a network while minimizing the network bandwidth needed. A source file is provided from one computer system to another in a tokenized form to reduce transmission bandwidth requirement. In the tokenized form, at least language elements present in the source file in its original form are substituted with corresponding tokens. In one embodiment, operands present in the source file in the original form are also substituted with corresponding tokens, and entries mapping the operand substituting tokens to the operands are maintained in a symbol table. In this case, the symbol table is also provided to the other computer system [see column 1 line 65-column 2 line 8, figures 1A-4 and the abstract]. The symbol table is considered to correspond to the compression key described in e.g. independent claim 10.

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Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of: BOX V

D2 describes a tag document compressing/decompressing technique using a tag code table [see the abstract and claim 1]. Figures 11 and 13 describe e.g. an SGML document in which tags are coded. The tag code table is considered to correspond to the compression key described in e.g. independent claim 10.

The method described in e.g. claim 1 describes the compression of a data set having a markup hierarchy. The use of compression of data sets having a markup hierarchy is mentioned in D1, e.g. the use of hypertext markup language (HTML) [see figure 4] and in D2 (SGML, Standard Generalized Markup Language) as mentioned above.

The subject matter of independent claims 1, 10 and 20-25 is therefore considered to lack novelty.

The subject matter of the only remaining independent claim, i.e. claim 17, lines up the following objects: compression handler, key handler, storage device, converter, optimizer, compressor, transmitter, packet handler and interface. All of these objects are considered well known for a person skilled in the art. The subject matter of claim 17 merely consists of the selection of which objects should be used for implementing a solution such as the solution described in D1. Such a selection can only be regarded as inventive if it presents unexpected effects or properties in relation to the rest of the range. However, no such effects or properties are indicated in the application. Hence, no inventive step is present in the subject matter of claim 17.

The remaining claims are considered to involve particular detail executions obvious to a person skilled in the art. Therefore, the invention according to these claims is not considered to involve an inventive step.

Documents D3 and D4 describes the general state of the art.

Accordingly, the subject matter of claims 1-28 does not involve an inventive step but it is industrially applicable. The subject matter of claims 1, 10 and 20-25 lacks novelty.

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Box No. VI Certain documents cited

1. Certain published documents (Rule 70.10)

Application No. Patent No. _____	Publication date (day/month/year) _____	Filing date (day/month/year) _____	Priority date (valid claim) (day/month/year) _____
US 6635088 B1	21-10-2003	20-11-1998	

2. Non-written disclosures (Rule 70.9)

Kind of non-written disclosure _____	Date of non-written disclosure (day/month/year) _____	Date of written disclosure referring to non-written disclosure (day/month/year) _____
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Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

The cited patent US 6253624 B1 on page 11 line 15 should probably refer to US 6253264 B1.

The storage device (6) mentioned on page 17 line 6 is missing from the figure 1.

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Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

The term "codes having less values" used in claims 1, 10 and 20-25 is vague and unclear and leaves the reader in doubt as to the meaning of the technical feature to which it refers, thereby rendering the definition of the subject-matter of said claims unclear (Article 6 PCT). The use of e.g. "less binary size" [see page 19 line 10] would be preferred.